

## **Regional Research Partnership Program**

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“Regional Research Partnership Program” will include three 30-minute presentations from Regional scientists who participated in the 2003 Regional Research Partnership Program. Each scientist will discuss their project in this Program. This program assigns scientists in EPA’s regional offices to ORD laboratories for a 3-6 month period to perform research on a topic of mutual interest to the region and ORD.

Thomas Baugh, EPA Region 4 (Session Chair)

Bonita Johnson, EPA Region 4

### **The Development of a DNA Library of Enterococci Species**

Thousands of water bodies throughout the Region 4 states and the nation are listed on the 303 (d) list as impaired due to excessive pathogen contamination; fecal contamination from human and/or animal sources which can cause gastrointestinal disease, including salmonella, cholera, and hepatitis A. This project developed fast, reproducible DNA-based technology that can detect and track fecal contamination to its source.

Mary White, EPA Region 5

### **Land Cover Diversity Measured by Satellite as a Proxy for Biodiversity**

Indices of species and community diversity are labor and data intensive to measure and thus are available only for a few well studied patches. It would be useful to be able to characterize community diversity over larger extents in order to compare areas and track trends. This project is aggregating NLCD land cover classes into pixels and a diversity index is calculated within each pixel. The land cover diversity index is being tested for its applicability as a proxy for terrestrial community diversity on a number of different land cover types at various scales.

Dan Ahern, EPA Region 4

### **The Relationship of Terrestrial Ecosystems to Manganese Emission from Wood Burning**

Manganese and manganese compounds are reported as a significant relative risk in EPA Region 4. Recent work with Risk Screening Environmental Indicators (RSEI) program indicates that these substances account for up to one-third of the relative risk from air emissions in Toxic Release Inventory reports. This project performed a search of existing literature to determine if exposure to manganese from burning wood is a specific air toxics risk for EPA Region 4 and possible risk in other regions with considerable use of wood fuels.

### **Expertise of the speakers**

Each of the speakers is a scientist in an EPA regional office.